

**Claims 1-2**

During the telephone interview, and in the Office Action (see page 3, paragraphs 1 and 2), the Examiner has indicated that each element of claims 1 and 2 are found in the prior art disclosed in the present specification. Therefore, the Examiner has indicated that claims 1 and 2 could be rejected under 35 U.S.C. § 102(b), as anticipated by Applicants' admitted prior art in the specification. The Examiner indicated that a 35 U.S.C. § 102(b) rejection is appropriate regardless of the fact that the Office Action recites the rejection of claims 1 and 2 under 35 U.S.C. § 103(a).

Further, in the rejection of claims 1 and 2, there is no argument in the Office Action to combine the prior art disclosure in Applicants' specification with any other prior art. Therefore, Applicants view the rejection of claims 1 and 2 as being under 35 U.S.C. § 102(b), as anticipated by the prior art disclosure in Applicants' specification. It is respectfully submitted, however, that the claims are patentable over this prior art for the reasons set forth below.

Applicants' invention, as recited by claim 1, includes a feature that is neither disclosed nor suggested by the art of record, namely:

a second interlayer insulating film formed of ozone TEOS and provided so as to cover the first interconnect;

This means that the second interlayer insulating film recited in claim 1 is formed of ozone TEOS.

Applicants' specification recites a second interlayer insulating film in the prior art that is formed of a plasma TEOS film. (See specification, page 3, lines 23-29, and page 5, lines 4-5) This is very different than the second interlayer insulating film recited in claim 1, which is formed of ozone TEOS. Applicants' specification indicates that when plasma TEOS film is used in forming the second interlayer insulating film, the compressive stress acting on the dielectric film of the capacitor prevents the polarization of the dielectric material forming the dielectric film. Since the polarization of the dielectric material is prevented, the physical

properties of the dielectric film of the capacitor deteriorate. (See specification, page 5, lines 4-10)

It is because Applicants' include the feature of a second interlayer insulating film formed of ozone TEOS that the following advantages are achieved. The ozone TEOS film performs self reflow and the formation of the second interlayer insulating film with no step and a sufficient flat top surface is permitted. This allows for satisfactory step coverage, while allowing the second interlayer insulating film to be thin. (See specification, page 19, lines 3-10) Since the second interlayer insulating film is thinner, stresses acting on the capacitor are alleviated. (See specification, page 22, lines 7-14) Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Claim 2 includes all of the features of claim 1 from which it depends. Thus, claim 2 is also patentable over the prior art disclosure in Applicants' specification for the reasons set forth above.

### **Claims 3-10**

In the telephone interview, the rejections of claims 3-10 were clarified. Below are the clarifications of the §103(a) rejections of claims 3-10.

No claim is identified in the third paragraph on page 3 of the Official Action, but the Examiner confirmed that he was referring to claim 3.

As to the last paragraph on page 3 of the Official Action, the Examiner is acknowledging that the prior art disclosed in Applicants' specification lacks that which is set forth in this paragraph, but the Examiner contends that what is lacking is found in the Yoshizumi reference.

As to the first paragraph on page 4 of the Official Action, the Examiner is acknowledging that the prior art disclosed in Applicants' specification lacks that which is set forth in this paragraph, but the Examiner contends that what is lacking is found in the Yoshizumi reference.

No claim is identified in the second paragraph on page 4 of the Official Action, but the Examiner confirmed that he was referring to claim 5.

As to the fourth, fifth and sixth paragraphs on page 4 of the Official Action, the Examiner is acknowledging that the prior art disclosed in Applicants' specification lacks that which is set forth in these paragraphs but the Examiner contends that what is lacking is found in the Matsuura reference.

As to the paragraph connecting pages 4 and 5, the Examiner contends that one method of forming a silicon dioxide layer is by using "Ozone TEOS" and that there are other ways. Consequently, because the claim is directed to a semiconductor device, the way in which something is formed cannot be the basis for arguing that the semiconductor device is patentable.

The paragraph in the middle of page 5 of the Official Action mentions none of the claims. The Examiner acknowledged that the comments in this paragraph apply only to claims 3 through 10 because claims 1 and 2 are, in the opinion of the Examiner, anticipated by the prior art disclosure in Applicants' specification and this disclosure need not be modified by or combined with any additional prior art to meet the limitations of claims 1 and 2. The disclosure in Applicants' specification needs to be modified or combined with the other two references to meet the limitations of claims 3 through 10.

While the Examiner has clarified the bases of the rejections of claims 3-10 under Section 103(a), the Examiner has failed to provide any support for combining the prior art in the rejections of claims 3-10. The Examiner has simply set forth the conclusion that the combinations of references in rejecting claims 3-10 are obvious. Lacking any explanation of why it would be obvious to one skilled in the art to combine the prior art as the Examiner has done, the rejections of claims 3-10 are improper and allowance of claims 3-10 is respectfully requested.

If the rejections of claims 3-10 are maintained and the Examiner offer support for combining the prior art, this would be a new rejection and cannot

be a final rejection, as Applicants will only be receiving these arguments for the first time.

Request for Extension of Time:

In the subject application, it is requested that the shortened period for responding to the Official Action dated July 5, 2000 be extended one month until November 5, 2000. Enclosed is the Patent Application processing fee under 37 C.F.R. § 1.17.

Respectfully Submitted,



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Enclosure: Check for \$110.00

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The Assistant Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on:

November 6, 2000  
Andrew L. Ney